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THE JOURNAL OF PHILOSOPHY

SOME REMARKS ON THE PHILOSOPHY OF LAW

THE philosophy of law has been traditionally a confused and confusing mixture of a number of separable and therefore, in Hume's sense, separate disciplines. People who have written about the philosophy of law have thrown into one kettle ethics, jurisprudence, metaphysics, science, epistemology, and politics. One function of the analytical philosopher of law is to put asunder what uncritical synthetic minds have joined together.

I shall spend some time later discussing what I take to be the meaning of science of law and the relation between such a science and ethics. For the present I want to distinguish between jurisprudence and certain philosophically related topics. Jurisprudence, analytically considered, is the study of the structure and logic (using "logic" in a broad sense) of legal systems. The less abstract parts of such a study play an essential rôle in the instructions of the lawyer, particularly the continental lawyer. The analyses of such a jurist as Hans Kelsen when he points out the hierarchical structure of legal norms, the criteria which a given set of norms must meet in order to be a *single* system, his stress upon the important and unique status of normative statements in the formulation of law, are all parts of jurisprudence. All of these problems are capable of a discussion that is quite independent of metaphysics. They "are capable of" independent discussion, not actually are independent, for as a matter of fact usually metaphysics and jurisprudence are quite inseparably fused. Russell has said that "bad philosophy has practical consequences while good philosophy has none." In relation to science, it is bad philosophy which sets up restrictions for the scientist. This is true for that form of Hegelianism which would argue that all cultural history consists of a unique series of events and that *true* knowledge of cultural science must somehow grasp this series in its uniqueness. This point of view, of course, would be non-sensical if it were applied to the physical sciences, so those who take it base their philosophy of social science on a metaphysics which makes the gulf between physical science and social science unbridgeable. Thus they argue that while the physical sciences consist of laws which relate *abstract* terms, the social sciences must eschew such abstractions. But what these historicists fail to see is that, unless

they have social science without language or symbols, they can not have social science without abstract universals; for language considered as a means of communication can contain no elements which are strictly speaking unique.

This situation in the social sciences provides an excellent illustration of a modified statement of Russell's thesis that while bad metaphysics has (undesirable) consequences for science, good metaphysics has none. There are several different positions which recognize that experience (scientific or otherwise) must always be experience of universals and which thus provide a metaphysics of science in terms of which the philosopher of science and the scientist may make appropriate analyses. The relation of total experience to universals is a question to be decided *among* these positions, but the outcome will have no effect on science. One may hold that experience is of both universals and particulars, or one may hold that, although experience is always itself particular, experience is always *of* universals. Either position would permit a free development of science.

The two fields which have been most commonly confused have been the fields of ethics and law. Both are in some sense normative; that is, they are concerned with norms or standards rather than with facts and descriptions; and both are therefore concerned with *goodness*. The natural-law philosophies from Pythagoras to Maritain would agree that, unless positive (that is, man made) law rests upon a foundation of natural (that is, ethically acceptable) law, it is not *really* law at all. The legal realists on the other hand have argued that law is merely a subject-matter for descriptive science and that therefore the science of law is not essentially different from physics. Needless to say, it seems to me that both the natural-law theorists and the realistic-law thinkers are mistaken. Obviously the word "law" can be used to mean whatever we want to make it mean, so that if the natural-law theorists want to say that, whatever paths others may choose to follow, *they* intend to use the word "law" only where it refers to *good* or *universal* or *natural* law, they may certainly do so; but in doing this, they must recognize that others do follow different paths, and that we must tolerate their use of language, too. The natural-law philosopher may then come back and say that "law" ought not to mean anything but "just" law. He may say this because "ought" statements are meaningful for him. The legal realist, on the other hand, is in a little more difficult spot, for when he says, "Law is made up of predictions as to what the judge will decide and is on the level of is-ness rather than oughtness," and we tell *him* that his definition is not a real definition of law but only the way he

thinks the word "law" *ought* to be used, he can not very well agree with us since in his language "ought" statements are meaningless. Since this philosophy of legal realism is very popular in the United States, I shall examine it in considerable detail. J. C. Gray, in his important book on the *Nature and Sources of Law*, argues that "the judge is an investigator as was Sir Isaac Newton."[1] J. W. Bingham, in an article called "What is the Law?" tells us that "The lawyer, as does the scientist, studies sequences of external phenomena and he studies them with a similar purpose—to determine their causes and effects and to acquire an ability to forecast sequences of the same sort."[2] And W. W. Cook writes in his "Scientific Method and the Law":

> The practising lawyer, as much as, let us say an engineer or a doctor is engaged in trying to forecast future events. What he wishes to know is, not how electrons, atoms, or bricks will behave in a given situation, but what a number of more or less elderly men who compose some court of last resort will do when confronted with the facts of his client's case. He knows how they or their predecessors have acted in the past in many more or less similar situations. He knows that if without reflection the given situation appears to them as not differing substantially from those previously dealt with, they will, as lawyers say, follow precedent. This past behavior of the judges can be described in terms of certain generalizations which we call rules and principles of law.[3]

Of course the most famous definition of law from the point of view of the realist is that made by Justice Holmes when he said: "The prophecies of what the courts will do *in fact*, and nothing more pretentious, are what I mean by law."[4]

It is clear that what these men call the science of law might better be called the science *about* law. Such a science takes law as a socio-psychological phenomenon and considers it existentially. It is better to speak of such a discipline as the sociology of law in the same sense that we speak of the sociology of science. Such a science about science or about law is a behavior science in the same way that the sociology of knowledge and the history of ideas, in a not merely narrative or documentary sense, are behavior sciences. However, the sociology of law is not law, as the sociology of mathematics is not mathematics. It is possible to show analytically in mathematics that 2 plus 2 equals 4, and this truth is a

[1] J. C. Gray, *The Nature and Sources of Law* (New York, 1921), p. 101.

[2] J. W. Bingham, "What is the Law?," *Michigan Law Review*, Vol. XI (1912–1913), p. 9.

[3] W. W. Cook, "Scientific Method and the Law," *American Bar Association Journal*, Vol. XIII (1927), p. 308.

[4] O. W. Holmes, "The Path of the Law," *Harvard Law Review*, Vol. X (1896–1897), p. 461.

formal truth quite independent structurally (though not, of course, existentially) of its historical and social context. It is possible within law to make certain clarifications which are in the same way independent of the law's historical and social context. For example, all law can be written in terms of tort law, and legal validity is determined by a law's position in a hierarchy of laws. Structurally all laws are norms. They prescribe what ought to obtain, not what actually does obtain. A law in the legal sense does not say that *X* will (as a matter of fact) murder *Y*, but rather a law gives a command to an official organ. Thus the law will read, "Organ *Z*, if *X* murders *Y*, then execute *X* in the prescribed manner!" As a matter of fact, *Z* may or may not obey the law, but the law in any case prescribes what *Z*'s conduct *ought to be;* it sets up a norm *for* action, it does not make a description *of* action.

Thus it seems to me that the legal realists confuse the descriptive, factual, social science which takes legal behavior as its subject-matter, with the law which is supposed to be the object of study.

However, it does not seem to me that the natural-law jurists are correct in arguing that it is impossible to describe law without also considering ethics. I have argued that law consists of norms. Ethics also consists of norms. What more easy fallacy of the undistributed middle than to conclude, therefore, that the reality of legal norms is identical with the reality of ethical norms? Such is the fallacy of the natural-law jurists. They confuse what they take to be *good* law with law in general. This confusion is found not merely in the traditional natural-law philosophers such as Plato, Aristotle, the Stoics, and St. Thomas Aquinas, but also in such relatively tough-minded thinkers as Harold J. Laski, who tells us that "positive law must run in the leading-strings of [ethical] principle"[5] and that "the essence of the law-making process is the consent of interested minds."[6] Most of us would most certainly agree that positive law *ought to* run in the leading-strings of principle and that the law-making process *ought to* be in essence the consent of interested minds, but unfortunately here below things are often not as they *ought to be*, and positive law often runs in very unethical leading-strings and the law-making process is not by any means, even in essence, the consent of interested minds.

Lauterpacht tells us that legal positivism is self-contradictory for the simple reason that it takes into account only one part of legal reality and leaves out natural law which is necessarily a part of existing law; and he takes Hans Kelsen to task because Kelsen

[5] H. J. Laski, *Studies in Law & Politics* (New Haven, 1932), p. 250.
[6] H. J. Laski, *Liberty in the Modern State* (New York, 1930), p. 72.

attempts to keep his legal science apart from his moral *Weltanschauung*. Kelsen has not been able to do this, Lauterpacht assures us, and he doubts if it ought to be attempted.[7] Bodenheimer goes even further, telling us not only that a science of law which excludes ethics is intellectually impossible but also that such a science "befogs the fundamental political issues of the day and encourages a nihilistic attitude in political science and jurisprudence. Its speedy abandonment should be advocated by all friends of law."[8]

This passage exemplifies a typical case of the intelligentsia's overestimation of its own importance in the nature and direction of social events. They are like Spinoza's stone become conscious while flying through the air. The way in which jurists interpret the law is not likely to bring about a nihilistic attitude with any serious political consequences. One is reminded of the frantic and pathetically mistaken article of Mortimer J. Adler in which he "proves" before America's entrance into the war that positivism and skepticism have brought about such radical rotting of the youth's moral fiber that courage and loyalty are impossible for this pre-war generation. Furthermore, even if the analytical approach to law does have superficial effects, the intellectual clarity which such an analysis makes possible ultimately redounds to the benefit of the world. Smashing machines because they have been misused by one type of economic order will scarcely cause civilization to return to a more idyllic, pastoral age. Neither will the ignoring or opposing of intellectual progress block such progress for very long. The repression of knowledge, individually or socially, is almost certainly a sign of maladjustment and decline. At the present stage of human knowledge this means that the healthiest society is the one which can best afford to recognize moralizing (whether its own or that of the other groups) as moralizing and does not confuse it with descriptive science. From this point of view the natural-law critics of an analytical philosophy of law are fighting against what they are so anxious to protect. But this is a necessary symptom of crisis and transition and does not need to reflect on their good faith.

The natural-law theorist, then, is confusing the ethical evaluation of law with a factual description of law and, although both are important, they can both be done much better if they are done separately.

[7] See H. Lauterpacht, "Kelsen's Pure Science of Law," in *Modern Theories of Law* (London, 1933), pp. 105–138, especially the last section called "Natural Law and Positivism," pp. 129–138.

[8] E. Bodenheimer, *Jurisprudence* (New York, 1940), pp. 290–291.

To summarize, then, the legal realists confuse the science which *is* law with the behavior science which describes law, while the natural-law theorists confuse moralizing about law with the science which *is* law. Since law is in some sense a science it is important to distinguish between law and descriptive science. Law is a complex, systematic, rationalized discipline and is therefore in a sense eligible for the name science. But in the same sense chess and poker are also sciences. Although in the so-called science of law there are "deductions" of a sort, although there is a movement of thought from general to particular decisions, such "deductions," such movements of thought, are not enough to constitute a science in the descriptive sense. Science, strictly speaking, must contain a body of empirical constructs arranged into a system of empirical and descriptive laws. It is important in the construction of a science that each scientific law composed from these constructs can be integrated into a systematic whole unified by some theory.

The rational discipline called law, then, is to be sharply distinguished from descriptive science, from ethics, and from moralizing. As rational discipline it is a systematic hierarchy of norms which may be studied structurally independently of their occurrence in history and society.

In this discussion I have illustrated philosophy in its analytic function by analyzing law. But I think the philosophy of law has for the philosopher another use, a use to which it has scarcely been put. The analysis of law helps, I think, not merely to understand law, but also ethics. Corresponding to the legal realists we have ethical naturalists or positivists; corresponding to the natural-law jurists we have the ethical absolutists. The ethical naturalists or positivists belong to the tough-minded or analytical side of philosophy, while the ethical absolutists and realists belong to the tender-minded and speculative side of philosophy. This makes for a nice verbal hodge-podge, for the natural-law theorists are opposed to the ethical naturalists and the legal realists are opposed to the ethical realists. Both, I think, are mistaken, and I think their mistakes can be seen more clearly when viewed as being analogous to the mistakes of their counterparts in the philosophy of law.

The ethical naturalist argues that the basic terms of ethics in so far as they are meaningful can be reduced to or explained in terms of descriptive science; the ethical absolutist argues that some ethical standard or standards is or are absolute and final. The first leads to an ethical position which argues that any ethical system is theoretically as good as any other ethical system, and, since as a body of norms any ethical system is theoretically equal

to any other, they are all quite meaningless. The legal positivist argues in effect that a system of law as law is neither good nor bad: it exists, and that is all; one can describe it scientifically, but in evaluating it one can only utter ideological statements. This, it seems to me, is patently false. If a system of law is inconsistent and unclear, if it can not be applied to actual social conditions, then it seems to me that it is a bad system of law and furthermore theoretically bad, not merely ideologically bad.

Again, the legal realists would attempt to describe law entirely in terms of factual reality. I have tried to show why I think this is impossible. The ethical naturalists likewise try to explain the reality of ethical norms in terms of factual reality. I think this is also impossible. There are three ways in which norms are irreducible to facts. First, norms are *not* objective in the sense that facts are objective. If there is ethical objectivity, it is an objectivity of a different sort from factual objectivity. Second, phenomenologically the experience of oughtness is irreducible to the experience of facts. Third, linguistically and logically no one has been able to put imperatives into a standard declarative logic. In order to include imperatives a logic must have more than two logical values. This seems to indicate something very basic about man's language, something so basic as to warrant the name "metaphysical." This is perhaps the most basic separation that can be made between oughtness and factuality. However, while such an analysis points to the need for a logic of imperatives which could not be reduced to a logic of declaratives, such a logic of imperatives would not be evidence for any particular ethical norm. As the metaphysics of ordinary declarative logic cuts beneath any scientific principle, so the metaphysics of imperative logic cuts beneath any ethical principle.

However, the ethical absolutists seem to me to be as mistaken as the ethical positivists. While it is true that law and morality consist of norms which may be judged as good or bad, and while the goodness or badness is a theoretical and not a merely emotive or ideological matter, it is not true that any norm is objectively and absolutely valid. What seems to me to be important is to recognize something about a good legal system and a good ethical system. In both personal and social life it is possible to choose between rational, self-conscious, and consistent norms on the one hand and irrational, unconscious, and inconsistent norms on the other. Freud has made us aware of the consequences of inconsistency of norms (for example, he has described the neuroses which result when the norms of one's ego are inconsistent with the norms of one's *id* and *super ego*) in personal life, and the present

chaotic state of the world should make us aware of what happens when society tries to live according to inarticulate and contradictory norms.

The present discussion has attempted an analysis and description of law which does not confuse it with such separable disciplines as metaphysics, ethics, descriptive science, and moralizing. In doing this, I have attempted to show that natural-law theorists are mistaken in confusing law with ethical considerations and that legal realists are equally mistaken in identifying law with physical science. Lastly, I pointed out what I take to be a fecund analogy between a critical evaluation of legal norms and ethical norms. Both sorts of norms are better to the degree that they are rational, self-conscious, and consistent.

LEWIS K. ZERBY

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THE NEW RATIONALISM: DEWEY'S THEORY OF INDUCTION[1]

RECENTLY it has become fashionable to acknowledge that John Dewey's philosophy of "instrumentalism" did not spring full-blown from his Yankee head, but instead has at least some of its roots in an alien culture. It is even no longer a major heresy to recall out loud that Dewey was once, long ago, an ardent Hegelian. Interest in the history of ideas has led, with admirable results, to studies in the origins of American thought generally and of pragmatism in particular. This enthusiastic movement to uncover what has been so long repressed in our cultural unconscious is most salutary. It would seem as if, having confessed the original sin, the burden of guilt has been discharged, absolution granted, and, for instance, Dewey's empiricist orthodoxy more firmly established than ever. It has, for example, been categorically stated that by 1903 Dewey was an "ex-idealist,"[2] because it was in that year that he publicly parted company with his idealistic background. Yet Dewey himself has frequently insisted that we must be careful to distinguish between what a man says and what he does. In this paper I wish to show by examination of one important aspect of Dewey's philosophy that, despite the verbal

[1] Read at the Annual Meeting of the Western Division of the American Philosophical Association at Columbus, Ohio, April 29, 1949. I am indebted to discussion with Professor Gustav Bergmann for clarification of several of the points made in this paper.

[2] M. G. White, *The Origins of Dewey's Instrumentalism*, Columbia University Press, 1943.

repudiation of his early allegiances, he has remained fundamentally rationalistic in his position on the nature and structure of scientific knowledge. This is perhaps nowhere more clearly shown than in his views, as definitively presented in the *Logic*, on postulates and postulate systems and the relation these views have to his conceptions of induction and empirical lawfulness. It is therefore to these things that I shall confine my attention in this paper.

The laws of logic and the laws of physics are, of course, instruments, tools, for Dewey and, for that matter, for anybody else. But not only are logical principles and physical laws instruments, they are also, Dewey insists, *postulates*.[3] And it is with the use of this term that the web of misunderstandings begins to close in about us. Let me try to unravel it. There are, it seems to me, *four* separable, but not by any means unrelated, components to Dewey's confused thesis concerning the "postulational" nature of the laws of science. And all four of these hark back to the "instrumentalist" echoes that reverberate in the term "postulational." The *first* centers about Dewey's interpretation of empirical laws as "operationally *a priori*." The *second* has to do with the nature of definition-formation within science and the relation between laws and definitions. The *third* is Dewey's conventionalistic interpretation of the axiomatic method and, therefore, of theory construction in science. The *fourth* and last is a verbal confusion between so-called "implicit" definitions and explicit definitions and all that neglect of the crucial difference between them leads to. I shall discuss these four points one at a time in the first part of this paper. Then, in the second part, I shall show how Dewey's distinction between the "generic" and the "universal" proposition, or physical law, is related to his theory of induction.

I

(1) Empirical laws, which in Dewey's system are interpreted to be what he calls "universal propositions," are taken to be postulates, representing certain stipulations and demands inquiry must satisfy. In this sense they are, in his terminology, "operationally *a priori*."[4] The genuine empiricist strain in Dewey's thought is revealed in the recognition that these demands are the result of previous successful inquiries and are, thus, learned through experience. However—and this is very strange and shows also how far Dewey is from, say, the Millean sort of empiricism—these postulates, learned through experience, are not in the ordinary

[3] *Logic: The Theory of Inquiry*, pp. 16–18. All page references are to this work.

[4] Pp. 14, 377, 379.

sense "empirical." That is to say, they do not have the characteristics empiricists, in the broadest sense of the term, attribute to natural laws. For, according to Dewey, they are not, as the tradition has it, contingent, inductive, or merely probable. Dewey's "universal proposition" is not afflicted with any of these infirmities; it is necessarily true. This, in fact, is its distinctive character. The "if . . . then . . ." hypothetical form of these privileged propositions—their merely verbal form, that is, to which, according to Dewey, all non-instrumentalist logicians cleave—conceals what Dewey calls their "true logical form," which is that of a *definition*.[5] Thus, universal propositions (laws of nature!) are "analytic" in the full Kantian sense of the word, for they represent an analysis of a conception into its component parts, as in "A white horse is white." And what examples does Dewey himself give of such "analytic" physical laws? "All men are mortal" and the Newtonian law of gravitation![6] On the empiricist analysis, these two laws represent extensions or extrapolations to all men and to all bodies of certain regularities observed to hold in a limited number of cases. They are thus contingent, probable, or, what means the same, merely inductive.

Now, there is a perfectly meaningful and harmless interpretation one can give to the view that empirical laws are "operationally *a priori* with respect to further inquiry." In principle, every experiment tests all the relevant hypotheses, but for the purposes of any particular research problem most of these hypotheses are taken for granted. Further, there may be so much converging evidence for a certain law, or this law may occupy so fundamental a place in a well-confirmed theory, that when something happens which seems to throw doubt upon its truth, rather than simply give it up, the scientist will look for interfering factors, or decide that perhaps his initial and boundary conditions were not those for which the law in question was affirmed to hold. A new planet was discovered because the physicists were loath to abandon Newton's law of gravitation in the face of what appeared to be counter-evidence. In a *psychological* sense, but only in a psychological sense, some laws of physics may, at some time, be called necessary. To attribute this sort of necessity to a law is to make a statement about the *behavior* of scientists in specified kinds of situations. The logical status of the law as such remains synthetic or contingent. It does not become "more and more" analytic, as we become more and more confident of its truth. A vitiating transition from "operationally *a priori*" to *a priori* in

[5] Pp. 272, 301, 256, 296, passim.

[6] Pp. 312–313, 256.

the sense of analytic is intimately connected with—perhaps, I should even say, a part of—Dewey's characteristic equivocation between two levels of analysis: the level of bio-sociological, essentially causal, description of the process of inquiry, on the one hand, and the level of structural or methodological analysis of the results of such inquiry, on the other.

(2) Yet, when we turn to Dewey's view regarding definition-formation, we find him in agreement with the contemporary view that the difference between a synthetic and an analytic proposition or, to use his terminology, between the existential and the non-existential, can be characterized syntactically. For he is not content to claim that a universal proposition is logically necessary because it is operationally *a priori*. He goes further and tells us that the nonexistential, necessary, universal proposition has a *form* that is different from that of the existential or contingent proposition. Here he uses, for once, though erroneously, the term "form" in the usual, non-Pickwickian sense of linguistic structure. The universal proposition, according to him, has the form of a definition. Now, *all* empiricists, and not they alone, would of course agree that definitions are a matter of syntax. The interesting question is, therefore, what makes Dewey say that empirical laws are definitions—a proposition *no* empiricist would accept. The transitions involved in his thinking seem to be based on considerations that perhaps may be best brought out by the following illustration.

Let us say that a disease, cholera, is defined in terms of a set of symptoms. If it is then empirically found that the necessary and sufficient conditions for the presence of cholera, the specified set of symptoms, is the presence, say, of Bacillus X, then medical scientists may, for good reasons, decide to define the disease in terms of the causative agent, rather than in terms of symptoms. They, therefore, revise their definition in the light of known laws, so that cholera is now defined as the presence of Bacillus X. When this has been done, the relation between cholera and Bacillus X is no longer a material equivalence; it is now a definition. But definitions are matters of volition; the scientist makes a decision that a concept shall be applicable if and only if certain conditions are satisfied. Definitions, therefore, may be said to be true by convention and anything that follows from them and from them alone would be analytic. Linguistically expressed, the assertion "If cholera, then Bacillus X is present" becomes a tautology, necessarily true, following from the definition. It is doubtless this procedure that led Dewey to his view that all laws are definitions. *Such definitions,* however, *are genetically related to em-*

pirical laws, but are not themselves laws. For do this and similar definitions make medicine an exact, necessary science like mathematics, and, like mathematics, factually empty? Of course not. When the results of inductive science are utilized to devise definitions, then the relationship in question no longer has the formal properties of a synthetic proposition and it is no longer part of the factual descriptive structure of science. What happens is that there is a *shift* in the synthetic relations. For now it is a factual statement, a matter of empirical evidence, that the presence of specified symptoms is a case of cholera, where the latter is defined in terms of the presence of Bacillus X. Thus, even if we could be sure that a certain treatment leads to the elimination of Bacillus X, we could not be sure that the treatment would cure the symptoms. Let me make clear that it is the formal, syntactical status of the proposition in question that changes; it is not merely a temporal change, or a change in the attitude of the scientist. In other words, introducing tautological relations at one point in the system of science results only in a shift of the synthetic relations to another point. Not *everything* is a matter of definition.

(3) The thesis that all laws of science are definitional is reminiscent of the familiar doctrine of *conventionalism.* The impact of conventionalism on Dewey becomes quite obvious when he says that the axioms, for example, of geometry are adopted because of what they entail and insists that the scientist has complete freedom of postulation, subject only to the condition that the postulates be fruitful of deductive consequences.[7] A two-fold confusion is here present. First, Dewey does not recognize the crucial distinction between pure and applied geometry. In pure, or mathematical, geometry, it is quite true that there is great freedom of postulation, limited only by the requirements of consistency and deductive fertility, but then the axioms are neither true nor false. Pure geometry, like all mathematics, has no factual content. However, the matter stands quite differently with physical, or applied, geometry, which is a part of physics. For if the axioms are given an interpretation, they become statements of physical relations that may or may not be true. And in the world of fact we do not have complete freedom of postulation; there may be many axiomatic systems for which we can not find a true factual interpretation. Further, Dewey says that the meaning of the axioms is to be found in the consequences, or theorems, which they imply. This kind of intra-systematic, or syntactical, "meaning" has, indeed, its correlate within physics when we speak of the meaning of a

[7] Pp. 10–11, 141.

concept as determined by the theory or system of laws in which it occurs. But "meaning" in this sense *alone* will never give us physics. If the system of postulates and theorems is to be about the world, if it is to be a factual, descriptive system, then its concepts must also have meaning in the sense of *designation*. They must, in other words, be names coördinated to physical objects or events, or patterns of such. Of this indispensable component of all meaning that is not purely "verbal" or formal, Dewey does not speak.

Part of Dewey's conventionalistic confusion arises from the circumstance that while we do not have complete freedom of postulation in science, there are yet degrees of freedom. It has been shown, for instance, that we may describe our world either in Euclidean or in non-Euclidean geometry. Which geometry we use is in *this* sense a matter of decision. However, from this it does not follow that the structure of our science is entirely a matter of choice, as Dewey and the conventionalists believe. We are free in the choice of our geometry, but once having chosen it, our *physics* is determined. For to completely describe our world, we need not only geometrical laws, but also the rest of physics, the body of non-geometrical physical hypotheses. Here, just as in the matter of definitions, we can not choose *everything*. If we have made a decision about the geometry we want to use, then the form our natural laws will take is not up to us. This is a matter of physics, a matter of the way the world goes, and with this, alas, Promethean illusions notwithstanding, we have little to do.

(4) The fourth strand in the web of Dewey's misunderstandings regarding axiomatics flows from the fact that axioms or postulates are frequently called "implicit definitions." This is doubtless one of the reasons Dewey believes that since, according to him, laws are postulates, they are also definitions. Yet, the phrase "implicit definition" is merely a manner of speaking and a very unprecise and misleading one at that. Postulates are not definitions in the sense of asserting a relation of equivalence among words or sentences and, thus, roughly speaking, mutual substitutability. Propositions that follow from definitions and definitions alone are, of course, tautologies. The relationship *between* the axioms or "implicit definitions" and the theorems is also tautological; the axioms logically imply the theorems. But the theorems of a non-logical postulate system are not tautologies, nor are the postulates themselves tautological. Some things will satisfy a given axiom system, or give a true interpretation, while others will not. We are therefore not at liberty to arbitrarily assign physical meaning to the terms related by the postulates. *Postulates,* therefore,

"define" their subject-matter only in the sense of delimiting the range of possible interpretations. Thus, if the system contains an axiom asserting the transitivity of an as yet unspecified relation *R*, we can not, for example, interpret *"R"* to mean the empirical relation "loves," since the factual non-transitivity of this particular relation is somewhat notorious. The postulates in this way restrict the possible domains of application, but they do not verbally define their terms. Dewey's transition from implicit definition, or non-tautological assertion of functional dependence, to definitions in the analytic sense is, therefore, illegitimate.

To sum up what has been said so far: Dewey's argument that natural laws are true by definition may be viewed as a series of purely verbal transitions, the steps of which are as follows: Science is postulational; postulates are definitions; definitions are logically necessary; therefore, science is logically necessary. The argument, I believe I have shown, does not hold.

II

Clearly, a philosophical system that characterizes empirical laws as necessary truths can not possibly hold orthodox empiricist views regarding the process of induction. In order to reveal explicitly what "induction" means for Dewey, it is necessary to investigate the nature of the relationship between his generic and his universal propositions. As any careful reader of Dewey knows, he has many points of disagreement with traditional empiricism. One of the sharpest is his rejection of the dichotomy between the empirical (factual, synthetic) and the rational (formal, analytic) and, correlatively, between induction and deduction.[8] This rejection follows the pattern already mentioned: substitution of an essentially causal description of the process of inquiry, in the Darwinist-functionalist vein, for structural analysis of the results of this process. The empirical and the rational, we are told, are merely different aspects of inquiry. They represent, respectively, the earlier and the later stages of scientific method. Upon such a view the distinction between induction and deduction becomes, curiously enough, a matter of *history*, rather than of logic or, if you please, the theory of knowledge. The earlier stage of the process of inquiry yields merely empirical or contingent truth, while the later or rational stage yields necessary truth. It will be well to take a close look at these two aspects of inquiry.

The empirical stage culminates in what Dewey calls generic propositions. These are generalizations from a large number of

[8] Pp. 305, 427.

events actually occurring and, as such, are "open to nullification."[9] So we see that they are what everybody else calls a natural law. Dewey points out that they have "existential reference" and "*at best* a high order of probability."[10] But he is not willing to let it go at that. To take these propositions out of what, in one of the most remarkable passages in the *Logic*, is called their "precarious form,"[11] the distinction between the generic and universal propositions is introduced. Only the former are afflicted with the frailness of induction, as empiricists understand that process. The latter remedy this unhappy state of affairs. The generic represents what he calls a "relatively incomplete *empirical* state of inquiry"; final judgment can not be made until a *necessary* and *inherent* relation between the events observation has noted to be correlated can be shown. In Dewey's terminology, a *reason* must be found for the observed conjunction of events, before we can tell that it is inherent and necessary.[12] The universal proposition supplies this reason. The very use of the word "reason" in a causal context is, of course, highly suspect to empiricists. However, even one who, as most philosophers who call themselves empiricists, feels repugnance towards all demands for inherence and necessity may charitably interpret Dewey's insistence that a reason be found for an observed correlation. One could conceivably maintain that this is Dewey's way of giving an account of scientific *explanation* or theory construction. A theory, for empiricists, is a deductively organized system of physical laws. And we say that we have explained or, if you will, shown the reason for any given law, if we can state another, usually more general, law or set of laws from which this and other ones may be derived. In this sense we say that Newton's law of gravitation explains or is the "reason" for Galileo's and Kepler's laws. But, unfortunately, this can not be what Dewey means. Certainly, it is not what he says. Let me explain.

Dewey's universal proposition which supplies the reason for, or "grounds" of, the generic is "nonexistential in reference and stands for a necessary relation which follows, by definition, from analysis of a conception."[13] Thus, the justification, or ground, as Dewey calls it,—it will be recalled that for the classical idealist "ground" refers to the antecedent in a necessary implication—of the empirical law is furnished, not by experience, not by an-

[9] P. 379.
[10] Pp. 296, 226, 200, 256, 279.
[11] P. 379.
[12] Pp. 193, 279, 304–305.
[13] Pp. 296, and passim.

other empirical law, but by a tautology! The occurrence of this tautology "retains its kinship with the organic,"[14] as Dewey puts it or, as I would say, is causally related to empirical laws, by the fact that it is *suggested* by them. I have already discussed this process of definition-formation in science. But this causal tie between the definitional and the factual as occurrents or events is not the only "reason" Dewey confounds these two levels. Another is one of his characteristic verbal transitions. This one has the following basis: stated as hypothetical conditionals, the laws of science and Dewey's generic propositions express the "necessary conditions" for the occurrence of some event. In the expression "If *A*, then *B*," *B* is a necessary condition for the existence of *A*: if not *B*, then not *A*. However, it marks a high stage of scientific achievement when we can state not only necessary, but also necessary and sufficient conditions. That is, it is desirable that we should be able to say not only "If *A*, then *B*," but also "If and *only* if *A*, then *B*." Knowledge of necessary and sufficient conditions means that we can state a material equivalence between propositions: whenever one is true the other will be true and conversely. Such an equivalence is not a definition; the concepts are independently defined. There is nothing *logically* necessary about the relationship. Dewey places much stress on the desirability of fulfilling the criteria of necessary and sufficient conditions or of exhaustiveness and exclusiveness, as he usually says,[15] and the process by which this takes place is as follows, according to him: first we have the generic proposition which expresses in a contingent proposition only the necessary conditions for the occurrence of an event; then we keep on looking until we have the necessary and sufficient conditions. From "necessary and sufficient" in the material, *factual* sense Dewey makes the transition to "necessary" and, moreover, to "logically necessary." For only the universal, definitional, non-existential proposition satisfies the criteria of necessary and sufficient conditions. It is by such verbal magic that the material equivalence is transformed into a formal, definitional equivalence. By piling synthetic upon synthetic, fact upon fact, he arrives at the analytic! Unfortunately, this won't do, for, as already stressed, no amount of converging evidence can convert the factual, empirical, or synthetic into the verbal, tautological, or analytic.

In order to understand what Dewey means by induction, we must give the other half of the story. For Dewey stresses that the process goes in two directions, from the generic to the universal

[14] P. 300.

[15] Pp. 188–289, 307, 309.

and back again. The generic suggests the universal in two ways: first, it leads to definitions devised as a result of inductive knowledge, in the usual sense; second, the necessary conditions indicated by the generic lead the inquirer to conjecture that perhaps they are both necessary and sufficient. Verbally, such a hypothesis takes the form of a universal proposition, which, since it is a mere hypothesis or suggested possibility, is non-existential. But the non-existential is also the logically necessary and definitional. Deduction or reasoning may then be used to elicit all the implications of this universal proposition in conjunction with other universal propositions. In this way a system is formed,[16] which, as is hardly necessary to point out, is wholly definitional and tautological. By developing such implications, new hypotheses are suggested as possibilities. If such a hypothesis is tested, it gives rise to a new generic proposition which, in turn, may warrant a new conceptualization or universal proposition, and so on, and so on. The process is a weaving back and forth between the two realms of the existential and the non-existential. With each successive oscillation the system of meanings, or deductively connected universal propositions, expands by the addition of new definitions. *This* "to-and-fro movement,"[17] to use Dewey's own description, is his substitute for the empiricist's account of systematic, theory-producing and theory-controlled induction. But theory, as the empiricist understands it, does not move on an ontological plane different from, to use Dewey's term, that of the generic. Nor is theory, for the empiricist, all definitional, tautological, and, therefore, necessary. In other words, although theory rationalizes the "generic" in the sense of systematizing it, it is not rationalistic in the sense of logically necessary, as it is in Dewey's system of universal propositions.

To show conclusively that Deweyan induction is not induction in the usual sense at all, let me ask one further question. Suppose the generic proposition suggested by the system of meanings is not verified in experience. What happens? Non-pragmatists would, of course, say that such failure redirects inquiry to new and different inductive hypotheses. Dewey does not say this. Instead, we are told that in such a case "one or the other of the involved *universal propositions* must be revised and reformulated."[18] Here we stand before the secret of induction revealed: *Induction,* for Dewey, *is revision and reformulation* (of universal propositions) *through redefinition,* into which we are jolted through

[16] Pp. 300–301, 111–112.
[17] P. 427.
[18] Pp. 272, 384.

contact with the recalcitrant existential. What is, thus, at best a loose and rather superficial account of one of the *results* of inductive discovery—the formation of new definitions—is offered as an account of induction itself.

The oscillation between the existential and the non-existential, between the factual and the tautological, is, Dewey insists, a continuous process, without end. Given the intrinsic logic of the system *and* Dewey's cultural hostility to all quests for certainty, we understand his insistence that there can not be an end to inquiry. But one can also say—and I shall say it—that there can be no end because Dewey does not have the courage of his confusions. For, if there were such an end, the untenability or, if you please, the essential rationalism of his system would be manifest. To see this, let us assume what, according to Dewey, must not be assumed, namely, that the process of inquiry has run its course. At this point the system of meanings has reached closure and comprehends in its totality the whole of science. Nevertheless, it would still be a definitional system! In other words, the whole of our knowledge is, ideally speaking, purely logical or, as a non-pragmatist would say, analytic. This, of course, is rationalism at its most uncompromising extreme. It may seem that I am over-interpreting, yet Dewey says as much himself in certain comments on the Aristotelian syllogism.

The Aristotelian syllogism, according to Dewey, has the merit of revealing the structure of final judgment. The logical form of this final judgment, we are told, is that of a universal, non-existential proposition as major premise, a matter-of-fact, or generic proposition, as minor premise, and a second universal proposition as conclusion.[19] If we interpret the syllogism temporally, *as Dewey does,* it will be seen that this accords with my description of the oscillatory process whereby the universal grounds the generic, which in turn suggests a new universal. Now, while the generic proposition has the same verbal form as the universal proposition, it is *really,* according to Dewey—who rejects the classical account of induction—*only* a "some" proposition.[20] The syllogism is, therefore, invalid, since a universal conclusion can not be derived from an "existential" premise. Dewey sees this, of course, and grants that the structure of final judgment as occurring in the process of inquiry is invalid, *but,* he says, we are striving towards a goal. The *ideal* of science is final judgment made up *entirely* of universal propositions, with no matter-of-fact

[19] P. 323.
[20] P. 380.

minor premise![21] That's what Dewey means when he says that judgment is not only necessary and definitional, but is also normative and prescriptive. *The achievement of tautological equivalence is viewed by Dewey as a normative, regulative principle of inquiry,* anticipated, no matter how crudely, by Aristotle's doctrine of the syllogism.

To summarize briefly: the "root-metaphor" of Dewey's entire construction is an ideal, world-wide, axiomatic system. This "ideal axiomatic" is necessary, definitional, and tautological. Metaphysical issues apart, which can not be discussed here, that aspect of his theory of inquiry which is relevant to the issue of induction rests on an interlocking and mutually reinforcing series of misunderstandings of science and its method. His construction is an attempt to reconcile verbally what is, in fact, irreconcilable. A superficial student of Dewey's might very well be led by his verbalisms to mistake his theory for what it is not, namely, a description of the axiomatic method which has played such a prominent rôle in the science of the last half-century and of which empiricists make so much. As I believe to have shown, the similarity is superficial indeed. All the "operational" and pseudo-psychological "grounding" apart, the decisive difference is, of course, that, for Dewey, not only the deductions from the premises but the premises *themselves* are tautological. Such rationalism is, of course, completely unacceptable to any non-idealistic philosopher. I personally am convinced that, explicitly, it would not be acceptable to Dewey either. Yet, despite its naturalistic trappings, rationalism is the ineluctable consequence of his elaborate and, in many ways, ingenious construction.

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BOOK REVIEW

In Search of a Way of Life. EDGAR A. SINGER, JR. (Machette Foundation Lectures, No. 1.) New York: Columbia University Press. 1948. 97 pp. $1.75.

In this volume Singer has put into one text the essence of his writings in the theory of values. The book consists of a series of three lectures delivered for the new Franklin J. Machette Foundation at Columbia University in the Spring of 1947.

Stripped to its essentials, and hence deprived of much of its beauty, Singer's argument runs as follows. A *necessary* condition for a life well lived is to be found in the relationship of that life

[21] Pp. 324, 303, 319.

to *ideals*. Ideals differ from goals of human behavior in that they are not even potentially attainable; but they are directive of behavior because they can be approximated and there is no limit to the degree of approximation man can attain. Singer decides that among many possible ideals, omnipotence is that one to which all men can subordinate all desires. In other words, a necessary though not sufficient condition for a good life is that it add whatever increment it can to man's endless quest for complete power. The possible sources of man's power are (1) himself, (2) his contemporaries, (3) his forerunners. Man gains more power through himself in his *science*, more power from his contemporaries through his *morals*, more from his forerunners in his *art*. Singer devotes the middle portion of this book to the discussion of the last road to power, and brings up to date the material in *On the Contented Life* (Henry Holt, 1936).

Art works are stimuli of a *mood*, not of an emotion or set of emotions. Many emotive theories of art are like the early associationist psychology; they conceive of the art work as calling forth a set of emotions of various sorts. Singer's attack on this form of esthetics is comparable to that of the Gestalt school's attack on the association psychology. The esthetic response for Singer is a Gestalt, and the meaning of the Gestalt is not to be ascertained by an analysis of the mood into component emotions. In fact, this is supposedly the main weakness of trying to approach esthetics through "simple" experimental tests on taste and allied responses: the results have nothing to do with esthetics at all, though of course emotions are somehow involved in every esthetic response. The mood is defined teleologically, just as in Gestalt psychology sensation is conceived essentially in teleological terms. Singer calls the mood associated with art "heroic," and, to be over-brief, its defining characteristic is that it moves us out of our humdrum existence into a "newness of being strange to us" (p. 55). It gives no direction to man's strivings, but does move him out of contentment with present things. Singer's theory of mood is based on a type of recapitulation theory, and hence his claim that art is a source of power we gain through our forerunners. Also, it must be emphasized that Singer's is a theory of the function of collective art: individual works of art by themselves may never produce the heroic mood, but art collectively is defined by this function.

In the final section of the book, Singer discusses the problem of what drives a man to model his life on ideal pursuit rather than the pursuit of maximum power for himself in his own life-time. His appeal, rather than his argument, is to a modernist concept of immortality. To the modern, immortality does not reside in an

immaterial soul that after death somehow escapes all space-time coördinates and establishes itself in a heaven of no change. Rather, each man's immortality lies in what his life may contribute to the endless search for more power. Such immortality must be guaranteed as long as an endless search is possible at all, for the progressive's life is such that, had he not lived, man would be less powerful. Further, as distinct from Kant's "postulate," Singer's concept of immortality is such that if a man accept the progressive dictum, he thereby enhances his chances for his own immortality.

Such is Singer's story, and, as he says, it is the kind of story a man can tell near the end of a long life. We of a younger generation, though, have a curiosity about these things, and this curiosity drives the reviewer to make certain comments.

(1) On the positive side, a great deal is to be learned from the essay by contemporary value-theorists through the concept of ideals. The present conflict between positivist, pragmatic, perfectionist, and other theories of values seems to ignore the possibility of relegating final values to ideals, and not to ends or ateleological forms. In particular, under Singer's conception, the scientific, moral, and esthetic values are not psychological or social, and yet can be studied empirically. That is, ideals as limit points of endless struggle certainly must transcend psychological and cultural contexts. This does not mean that Singer eliminates the psychological and social matrices of inquiry; he merely shows that there is another matrix, hitherto neglected: the matrix of human behavior interpreted in terms of the pursuit of ideals. In effect, Singer is arguing for a new field of scientific inquiry, in which man is considered as an ideal-pursuer. Such a field would not merely include a description of man's struggles (like Toynbee's or Spengler's), but also the struggle of man to unearth his deepest desires, to determine what it is that he really wants. This, as Singer points out, is no easy study, no easier, in fact, than the study of the real distance between two centers of gravity, or the real intensity of a sensation response; no easier, indeed, than any other question science may raise. Thus Singer has placed himself on the side of those who would remove methodological distinctions between value theory and science: but he has perhaps done a great deal more by suggesting that values, though not residing in the aims of society, may be studied scientifically, since nothing prevents an experimental approach to a study of man as an ideal-seeker. And in this age of teleological mechanisms that think, sense, reflect, and the like, we may very well find that the defining characteristic

of man does not lie in his rational powers or his ends-seeking, but rather in his characteristic of being a pursuer of ideals.

(2) The modern value-theorist will want to ask certain methodological questions concerning Singer's assertions. Are they analytic or synthetic, and what is the method of their verification? Thus Singer has placed ultimate values in the realm of ideals. How can this claim be justified? Again, there is the assertion that omnipotence is the sole ideal of progressive man. Is this assertion analytic or synthetic, or is it an assertion at all? In a sense, the whole argument of the book may be taken as a deduction (in Kant's sense); the grounds of right here lie in the religious form of life:

> The two conditions that religion imposes are, first, that a religious life must subordinate all other desires to one, namely, the will to move consistently forward toward one supreme and ultimate end; and, second, that this end must be regarded as one and the same for all men, of all times. [P. 5.]

Once these conditions are granted, the deduction of the principles of the progressive life follows. Thus there can be only one ideal that all men must seek, and this is omnipotence:

> If one asks himself whether there is any other wish than the wish for greater power to achieve attainable objectives that must remain invariant through all the ages, . . . must the answer not be in the negative? What makes us so sure of the invariance of this wish for power? Is it not that its presence is implied by the definition of volition itself . . .? [P. 13.]

There is, of course, the question whether a man *ought* to follow a religious life. In a sense, for Singer, this is the only meaning "ought" can sensibly have:

> No attainable end could possibly be the end all men ought to pursue, however we define the "ought"; for once attained by some, what would be left for later comers to strive toward? [P. 88.]

But this argument only has cogency if we accept the conditions imposed on a religious life. What if our assertion is that a religious life in Singer's sense ought *not* to be followed? Does such an assertion make sense? In a way, it makes no sense relative to the present volume, whose sense and nonsense are established by fiat in the first pages. But Singer is no Kant; he does not mean that a mind can not sensibly raise issues concerning the grounds for its deductions.

In *On the Contented Life* Singer seemed to suggest that the only force in the assertion of the value of a religious life is persuasive: let a man but examine all other possible lives, and convince himself by such an examination that only the religious provides that to which he may cling (i.e., find "contentment") through all

his days. And yet, there seems to be more to his recommendation for an examination of history than this. Perhaps he means, too, that there is nothing to prevent the most controlled of inquiries determining what lessons history has to teach concerning the successes and failures in man's search for his values. For example, history must certainly teach us that values transcend socially accepted norms, just as it teaches us that they transcend the deepest of individual human feelings. But the phrase "history teaches" at best merely suggests the problem the future methodologist must face.

(3) For Singer, our great advances are made at the hands of the geniuses in various fields:

> Let me use . . . "genius" . . . to stand for a man and mind whose work falls under no rule of normality our science has yet discovered. Then, let me say that the genius of the scientist, moralist, artist fashions what we might call the spear heads of our battle for power. . . . [P. 78.]

And for the rest of us, there is this advice:

> How can the man in the street help genius to wield the weapon fate has put in his hands? By willingly foregoing some portion of the fruits of the earth that might have been his to enjoy had genius been harnessed to the plough instead of being sustained by the labor of others. . . . [P. 78.]

This is no doubt the kind of application a lonely worker would conceive for his theory. But it seems natural enough to ask whether a class in society might not also have a genius of its own; its efforts to reach its goal might lie outside the socially accepted norm, and yet constitute the most progressive step that the society can take. If we can apply Singer's thinking to the matter, then all progressive men ought to support such a class in its struggle regardless of whether the struggle seems to the "normal" man to be detrimental to the immediate social welfare. There will, in short, be a right and a wrong to the case, and the issues ought not to be settled by compromise, by bargaining, or by any other tactic aimed to weaken the position of the progressive side. And, just as a man is bad or unprogressive in so far as he retards the works of genius in the laboratory, those men or groups of men who in any way retard the genius of the progressive class and attempt to slow up its fight to maintain its ends, must be regarded as unprogressive. Singer does not make this analogy, and in these days of ideological strife it may not always be best to say what is most pertinent to the age. In any case, to the reviewer the paths seem clear: to maintain our democracy we may choose to forsake all reference to ideals, and conduct our conscious struggle for immediate social objectives of more freedom for some, less discrimination, more

charitable enterprises, fewer slums in certain areas, and the like. Or, we may choose honestly to face the real threat to democracy, honestly to admit our ideals, honestly to admit that we can not exclude merely one group that threatens our political freedom, but that we must exclude and fight against all groups who work to deprive man of the fruits of his labor. We must then proceed to further the aims of classes and groups that in opposition to the "accepted" norms seek maximum nonpreferential distribution of man's most highly developed products, arts, and science. And, as Singer says,

> that is all; one thinks these things out as best one can, and that is all.

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BOOK NOTES

Reason and Conduct in Hume's Treatise. RACHAEL M. KYDD. (Oxford Classical and Philosophical Monographs.) New York: Oxford University Press. London: Geoffrey Cumberlege. 1946. ix + 196 pp. $3.75.

The lateness of this note is no reflection upon the quality of its subject, which is unusually high. It appears to be a dissertation, but, if so, it is of a calibre beyond that which is usually achieved in dissertations in this country, for it is a thoroughly mature, readable, and incisive work, and a significant contribution both to the literature on Hume's ethics (which, by and large, is simply scandalous) and to ethics itself. Mrs. Kydd's exposition of Hume's doctrine is always accurate and just; and her acute critical analyses are invariably directed to the central theoretical as well as the historical issues involved in his critique of rationalism in ethics. The scope of the book is limited solely to those parts of Hume's psychology and moral philosophy which are concerned with the functions of cognition in moral judgment, deliberation, and conduct; but the subject itself is of such crucial importance both to ethics in general and to Hume's ethics in particular that it is both useful and fitting to have it for once discussed independently, without regard to the many confusing collateral issues in which it gets entangled in the *Treatise*.

One of the best features of Mrs. Kydd's book is her clear and resolute distinction—which is by no means always clear from a cursory reading of the original texts—between Hume's theory of obligation and his theory of valuation. She shows beyond question that the primary object of Hume's critique is the rationalistic doctrine that reason, as such, can be practical, i. e., that it is con-

stitutive and not merely regulative of our actions. Judgments of obligation are, by common consent, practical; but the characteristic function of practical judgments is not merely to describe a fact or to point to a possible result but also to influence conduct; hence the peculiar obligatoriness or moving appeal of such judgments can never be wholly understood or accounted for through an analysis of their cognitive meaning or truth conditions—if any. In this connection there is perhaps only one point upon which both Mrs. Kydd and probably Hume himself are insufficiently critical. This may be seen in the following quotation which, I am persuaded, is not unfair to Hume's position:

> According to Hume, to say that an act is obligatory is to say something about a relation between the thought of it and an agent's *will:* it is to say that, in some manner, an agent is prompted to do an action by the thought of it.

I do not think this will do. And the difficulty may be seen in the expressions "it is to *say*" which is ambiguous, and "*is* prompted" which is clearly too strong. But the problems involved, although theoretically important, are quite easily cleared up by a judicious application of Humean principles.

Mrs. Kydd also corrects several misinterpretations of Hume's ethics, particularly those which treat him as a complete irrationalist. Patiently and with considerable subtlety she analyzes Hume's conception of the mediative functions of reason in deliberation, showing conclusively that Hume, despite occasional characteristic overstatements of his position, never for a moment intended to "do down" the place of reason in the moral life. On the contrary. Moreover, to my knowledge she is (with one exception) the only commentator on Hume's ethics who has correctly formulated Hume's conception of moral evaluation. As she says, Hume's doctrine quite clearly is *not* that "good" means "what most men do in fact approve," but rather, "what a reflective and benevolent spectator would approve"—which is another thing altogether. This gives the lie to Broad's "exceedingly uncharitable, if not [a] completely false, interpretation of what Hume says." Mrs. Kydd, I think, is considerably more than charitable in this instance. What is so mysterious to me, however, is how Broad's unfounded fantasy could have come to be regarded by so many contemporary writers on ethics as the truth about Hume.

H. D. A.

Logic and Scientific Methods: An Introductory Course. HERBERT L. SEARLES. New York: The Ronald Press Company. 1948. xii + 326 pp. $3.50.

An Introduction to Critical Thinking: A Beginner's Text in Logic. W. H. WERKMEISTER. Lincoln, Nebraska: Johnsen Publishing Company. 1948. xx + 663 pp.

The pattern of conventional beginning texts in logic is now so familiar that departures from it are about all that call for comment in a brief review. One begins with logic and language, continues with deductive logic, classical and (sometimes) modern, and concludes with scientific method (or methods). Both of these books follow the well-worn trail, but at different paces. Professor Werkmeister's, which is double the length of Professor Searles's, devotes over a hundred pages to the functions of language, a catalogue of fallacies, and a somewhat-dated digest of "propaganda-analysis." Professor Searles disposes of these matters in about forty pages, discussing fallacies in a brief chapter at the end of his treatment of deductive logic. The latter covers in about a hundred pages the classical material upon which Professor Werkmeister lavishes about two hundred. In addition, Werkmeister offers about sixty pages of material on symbolic logic. His remaining two hundred pages are concerned with "Truth and Empirical Knowledge," to which Professor Searles allots about one hundred and twenty pages. The Searles book contains in appendices a "genealogical tree of logic," suggestions for the solution of problems in the text, and a glossary of logical terms. Both books abound in illustrative material, with Werkmeister's having the advantage of quantity. Professor Searles does well to use the plural, "scientific methods," to call attention to the fact that "as new sciences develop to handle new materials, new methods must be employed." Yet neither book is especially strong in relating the methods of the earlier sciences to those of the later.

The great length of Professor Werkmeister's treatment virtually compels the average teacher of logic to select from the wealth which it offers. Professor Searles's text would be more easily manageable in a single semester course. Both books, unfortunately, read like manuals, and it is hard to imagine a student looking forward to an assignment in either with any great amount of literary relish.

H. A. L.

The Politics of Aristotle. Translated with Notes by ERNEST BARKER. Oxford: At the Clarendon Press. 1948. xxvii + 452 pp.

From the preface we quote the following:

This is a shortened form of the translation of the *Politics* originally published in 1946. The text of the translation is unabridged (except that a few

passages, which are mainly of antiquarian interest, have been omitted); and the notes of the original edition are also, with only a few exceptions, retained. The original introduction (except for one of its sections, here printed as a prefatory note), and also the appendices, have been omitted; but on the other hand two new items have been added—a chronological table of the main events of Greek history which are mentioned in or bear on the text of the *Politics*, and a glossary, with an English key, of the main historical and philosophical terms used or implied in the course of Aristotle's argument.

The part of Barker's introduction which has been retained in this edition is entitled "Note on the Vocabulary of the *Politics*" and emphasizes a critical discussion of the terms related to *polis, archē, kyrios, dikē, nomos, physis, aretē,* and *eudaimonia.* The attempt is made to give not merely the Greek meaning and context of these terms, but also the contrast between the Greek and the Roman language and thought on the subject of politics. It is to be regretted that the whole of Mr. Barker's valuable introduction could not be included in this very useful edition.

H. W. S.

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